

**STATE OF INDIANA**  
**DEPARTMENT OF ENVIRONMENTAL MANAGEMENT**  
**PUBLIC NOTICE NO. 20211004 IN0001759 – D**  
**DATE OF NOTICE: OCTOBER 4, 2021**  
**DATE RESPONSE DUE: NOVEMBER 4, 2021**

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The Office of Water Quality proposes the following NPDES DRAFT PERMIT:

**MAJOR – MODIFICATION**

**INDIANA-KENTUCKY ELECTRIC CORP. - CLIFTY CREEK STATION**, Permit No. IN0001759, JEFFERSON COUNTY, 1335 Clifty Hollow Rd., Madison, IN. This modification is to change ELG compliance dates in the permit. Permit Manager: Richard Hamblin, 317/232-8696, [rhamblin@idem.in.gov](mailto:rhamblin@idem.in.gov). Posted online at <https://www.in.gov/idem/public-notices/>.

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**PROCEDURES TO FILE A RESPONSE**

Draft can be viewed or copied (10¢ per page) at IDEM/OWQ NPDES PS, 100 North Senate Avenue, (Rm 1203) Indianapolis, IN, 46204 (east end elevators) from 9 – 4, Mon - Fri, (except state holidays). A copy of the Draft Permit is on file at the local County Health Department. Please tell others you think would be interested in this matter. For your rights & responsibilities see: Public Notices: <https://www.in.gov/idem/public-notices/>; Citizen Guide: <https://www.in.gov/idem/resources/citizens-guide-to-idem/>. Please tell others whom you think would be interested in this matter.

**Response Comments:** The proposed decision to issue a permit is tentative. Interested persons are invited to submit written comments on the Draft permit. All comments must be postmarked no later than the Response Date noted to be considered in the decision to issue a Final permit. Deliver or mail all requests or comments to the attention of the Permit Writer at the above address, (mail code 65-42 PS).

**To Request a Public Hearing:**

Any person may request a Public Hearing. A written request must be submitted to the above address on or before the Response Date noted. The written request shall include: the name and address of the person making the request, the interest of the person making the request, persons represented by the person making the request, the reason for the request and the issues proposed for consideration at the Hearing. IDEM will determine whether to hold a Public Hearing based on the comments and the rationale for the request. Public Notice of such a Hearing will be published in at least one newspaper in the geographical area of the discharge and sent to anyone submitting written comments and/or making such request and whose name is on the mailing list at least 30 days prior to the Hearing.



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

100 N. Senate Avenue • Indianapolis, IN 46204  
(800) 451-6027 • (317) 232-8603 • [www.idem.IN.gov](http://www.idem.IN.gov)

Eric J. Holcomb  
Governor

Bruno Pigott  
Commissioner

October 4, 2021

VIA ELECTRONIC MAIL

Mr. J. Michael Brown, ES&H Director  
Ohio Valley Electric Corporation  
3932 U.S. Rte. 23  
P.O. Box 469  
Piketon, OH 45661

Dear Mr. Brown:

Re: NPDES Permit No. IN0001759  
Draft Permit Modification  
Indiana-Kentucky Electric Corporation  
- Clifty Creek Station  
Madison, Indiana, Jefferson County

Your request for a permit modification has been reviewed and processed in accordance with rules adopted under 327 IAC 5. Enclosed is a copy of the draft permit modification. Pursuant to IC 13-15-5-1, IDEM will publish the draft permit document online at <https://www.in.gov/idem/public-notices/>. Additional information on public participation can be found in the "Citizens' Guide to IDEM", available at <https://www.in.gov/idem/resources/citizens-guide-to-idem/>. A 30-day comment period is available to solicit input from interested parties, including the public

Please review this draft permit modification and associated documents carefully to become familiar with the proposed terms and conditions. Comments concerning the draft permit modification should be submitted in accordance with the procedure outlined in the enclosed public notice form. We suggest that you meet with us to discuss major concerns or objections you may have with the draft permit modification. Questions concerning this draft permit modification may be addressed to Richard Hamblin of my staff, at 317/232-8696 or [rhamblin@idem.in.gov](mailto:rhamblin@idem.in.gov).

Sincerely,

Nikki Gardner, Chief  
Industrial NPDES Permits Section  
Office of Water Quality

Enclosures

cc: Jefferson County Health Department  
Gabe Coriell, OVEC  
John Markley, OVEC  
Chad Pittman, IDEM  
Chief, Permits Section, U.S. EPA, Region 5



A State that Works

STATE OF INDIANA  
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
AMENDED AUTHORIZATION TO DISCHARGE UNDER THE  
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Federal Water Pollution Control Act, as amended, (33 U.S.C. 1251 et seq., the "Clean Water Act" or "CWA"), and IDEM's permitting authority under IC 13-15,

INDIANA-KENTUCKY ELECTRIC CORPORATION

is authorized to discharge from the power plant located at 1335 Clifty Hollow Road, Madison, Indiana, to receiving waters named the Ohio River, Clifty Creek, and unnamed tributaries to Clifty Creek in accordance with effluent limitations, monitoring requirements, and other conditions set forth in Parts I, II, III, and IV hereof.

The permit, as issued on March 28, 2017, and subsequently modified on April 10, 2018, and May 17, 2021, is hereby amended as contained herein. The amended provisions shall become effective \_\_\_\_\_. All terms and conditions of the permit not modified at this time remain in effect. Further, any existing condition or term affected by the amendments will remain in effect until the amended provisions become effective. This permit may be revoked for the nonpayment of applicable fees in accordance with IC 13-18-20.

This permit and the authorization to discharge, as amended, shall expire at midnight April 30, 2022. In order to receive authorization to discharge beyond the date of expiration, the permittee shall submit such information and forms as are required by the Indiana Department of Environmental Management no later than 180 days prior to the date of expiration.

Issued on \_\_\_\_\_ for the Indiana Department  
of Environmental Management.

\_\_\_\_\_  
Jerry Dittmer, Chief  
Permits Branch  
Office of Water Quality

- [1] See Part I.B. of the permit for the Narrative Water Quality Standards.
- [2] In the event that changes are to be made in the use of water treatment additives including dosage rates beyond the approved estimated maximum dosage rates, or changes that could significantly change the nature of, or increase the discharge concentration of the additive contributing to this Outfall, the permittee shall notify the Indiana Department of Environmental Management as required in Part II.C.1 of this permit. The use of any new or changed water treatment additives or dosage rates shall not cause the discharge from any permitted outfall to exhibit chronic or acute toxicity. Acute and chronic aquatic toxicity information must be provided with any notification regarding any new or changed water treatment additives or dosage rates.
- [3] The Stormwater Monitoring and Non-Numeric Effluent Limits and the Stormwater Pollution Prevention Plan (SWPPP) requirements can be found in Part I.D. and I.E. of this permit.
- [4] The permittee shall post a permanent marker on the stream bank at each outfall discharging directly to the Ohio River.

The marker shall consist at a minimum of the name of the establishment to which the permit was issued, the permit number, and the outfall number. The information shall be printed in letters not less than two inches in height.

The marker shall be a minimum of 2 feet by 2 feet and shall be a minimum of 3 feet above the ground.

- [5] Effective November 30, 2022, there shall be no discharge of pollutants in bottom ash transport water.
- [6] Flow is calculated based on maximum pump design capacities plus average daily rainfall and evaporation. Rainfall and evaporation calculations are based on annual rainfall and EPA coefficients of drainage/absorption/evaporation.
- [7] An exceedance of either the monthly average or daily maximum concentration limitations for TSS which is demonstrated to be caused by the presence of algae in the effluent will not constitute a violation of the permit. In such cases, if visual examination reveals the presence of algae, the permittee may quantitatively demonstrate the presence of algae by subtracting the results of a volatile suspended solids test (as described in the current U.S. EPA approved version of the Standard Methods for the Examination of Water and Wastewater) from measure TSS along with a letter of explanation to accompany monthly DMR forms. Standard tests for TSS are to be performed at all other times.

5. The permittee is authorized to discharge from the internal outfall listed below in accordance with the terms and conditions of this permit. The permittee is authorized to discharge from Internal Outfall 201. The discharge is limited to treated FGD wastewater. Samples taken in compliance with the monitoring requirements below shall be taken at a point representative of the discharge but prior to comingling with other wastestreams. Such discharge shall be limited and monitored by the permittee as specified below:

**DISCHARGE LIMITATIONS**  
Internal Outfall 201

Table 1

<u>Parameter</u>	<u>Quantity or Loading</u>		<u>Units</u>	<u>Quality or Concentration</u>		<u>Units</u>	<u>Monitoring Requirements</u>	
	<u>Monthly</u>	<u>Daily</u>		<u>Monthly</u>	<u>Daily</u>		<u>Measurement</u>	<u>Sample</u>
	<u>Average</u>	<u>Maximum</u>		<u>Average</u>	<u>Maximum</u>		<u>Frequency</u>	<u>Type</u>
Flow	Report	Report	MGD	-----	-----	-----	1 X Daily	24 Hour Total
TSS	-----	-----	-----	30	100	mg/l	2 X Monthly	Grab
O+G	-----	-----	-----	15	20	mg/l	2 X Monthly	Grab
Arsenic[1]								
Interim	-----	-----	-----	Report	Report	ug/l	1 X Weekly	Grab
Final[2]	-----	-----	-----	8	18	ug/l	1 X Weekly	Grab
Selenium[1]								
Interim	-----	-----	-----	Report	Report	ug/l	1 X Weekly	Grab
Final[2]	-----	-----	-----	29	70	ug/l	1 X Weekly	Grab
Mercury[1][3]								
Interim	-----	-----	-----	Report	Report	ng/l	6 X Yearly[4]	Grab
Final[2]	-----	-----	-----	34	103	ng/l	1 X Weekly	Grab
Nitrate/Nitrite, as N								
Interim	-----	-----	-----	Report	Report	mg/l	1 X Weekly	Grab
Final[2]	-----	-----	-----	4	3	mg/l	1 X Weekly	Grab

Table 2

<u>Parameter</u>	<u>Quality or Concentration</u>		<u>Units</u>	<u>Monitoring Requirements</u>	
	<u>Daily</u>	<u>Daily</u>		<u>Measurement</u>	<u>Sample</u>
	<u>Minimum</u>	<u>Maximum</u>		<u>Frequency</u>	<u>Type</u>
pH	6.0	9.0	s.u.	1 X Weekly	Grab

- [1] The permittee shall measure and report the identified metal in total recoverable metal.
- [2] Final effluent limitations become effective November 30, 2022.
- [3] Mercury monitoring shall be conducted using EPA Test Method 1631, Revision E.

<u>Parameter</u>	<u>EPA Method</u>	<u>LOD</u>	<u>LOQ</u>
Total Mercury	1631, Revision E	0.2 ng/l	0.5 ng/l

- [4] Mercury monitoring shall be conducted bi-monthly in the months of February, April, June, August, October, and December of each year until the final effluent limitations become effective November 30, 2022.



**National Pollutant Discharge Elimination System  
Fact Sheet for  
Indiana-Kentucky Electric Corporation – Clifty Creek Station  
Draft modification: September 2021  
Final modification:**

**Indiana Department of Environmental Management**

100 North Senate Avenue  
Indianapolis, Indiana 46204  
(317) 232-8603  
Toll Free (800) 451-6027  
[www.idem.IN.gov](http://www.idem.IN.gov)

<b>Permittee:</b>	Indiana-Kentucky Electric Corporation 3932 U.S. Route 23 P.O. Box 468 Piketon, OH 45661
<b>Existing Permit Information:</b>	Permit Number: IN0001759 Expiration Date: April 30, 2022
<b>Facility Contact:</b>	Gabriel S. Coriell, Environmental Services Manager (740)289-7267 or <a href="mailto:gcoriell@ovec.com">gcoriell@ovec.com</a>
<b>Facility Location:</b>	Clifty Creek Station 1335 Clifty Hollow Rd Madison, IN 47250 Jefferson County
<b>Receiving Stream:</b>	Ohio River Clifty Creek Unnamed Tributaries to Clifty Creek
<b>GLI/Non-GLI:</b>	Non-GLI
<b>Proposed Permit Action:</b>	Modify
<b>Date Application Received:</b>	June 11, 2021
<b>Source Category</b>	NPDES Major – Industrial
<b>Permit Writer:</b>	Richard Hamblin (317)232-8696 or <a href="mailto:rhamblin@idem.in.gov">rhamblin@idem.in.gov</a>

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## **1.0 INTRODUCTION**

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The Indiana Department of Environmental Management (IDEM) received a request from the permittee on June 11, 2021, to modify National Pollutant Discharge Elimination System (NPDES) Permit IN0001759. The current five year permit was issued with an effective date of May 1, 2017, in accordance with 327 IAC 5-2-6(a). The permit was subsequently modified on April 10, 2018, and May 17, 2021.

The Federal Water Pollution Control Act (more commonly known as the Clean Water Act), as amended, (Title 33 of the United States Code (U.S.C.) Section 1251 et seq.), requires an NPDES permit for the discharge of pollutants into surface waters. Furthermore, Indiana law requires a permit to control or limit the discharge of any contaminants into state waters or into a publicly owned treatment works. This proposed permit action by IDEM complies with and implements these federal and state requirements.

In accordance with Title 40 of the Code of Federal Regulations (CFR) Sections 124.8 and 124.56, as well as Title 327 of the Indiana Administrative Code (IAC) Article 5-3-8, a Fact Sheet is required for certain NPDES permits. This document fulfills the requirements established in these regulations. This Fact Sheet was prepared in order to document the factors considered in the development of NPDES Permit effluent limitations. The technical basis for the Fact Sheet may consist of evaluations of promulgated effluent guidelines, existing effluent quality, receiving water conditions, Indiana water quality standards-based wasteload allocations, and other information available to IDEM. Decisions to award variances to Water Quality Standards or promulgated effluent guidelines are justified in the Fact Sheet where necessary. This Fact Sheet also identifies the modified pages of the permit as issued on March 29, 2017.

## **2.0 FACILITY DESCRIPTION**

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### **2.1 General**

The Clifty Creek Generating Station is classified under Standard Industrial Classification (SIC) Code 4911 – Steam Electric Services. The facility is a coal-fired steam electric generating plant that consists of six (6) generating units with a combined generating capacity of 1304MW (six 217.26MW units). The majority of the water usage is non-contact cooling water, the source water of which is the Ohio River.

A map showing the location of the facility has been included as Figure 1.

[illegible]

Clifty Creek Station  
1335 Clifty Hollow Rd  
Madison, IN 47250



## 2.2 Outfall Locations

Outfall 001	Latitude: 38° 42' 55" Longitude: -85° 26' 53"
Outfall 002	Latitude: 38° 43' 46" Longitude: -85° 26' 07"
Outfall 003	Latitude: 38° 44' 09" Longitude: -85° 25' 44"
Outfall 008S	Latitude: 38° 44' 20" Longitude: -85° 25' 30"
Outfall 013S	Latitude: 38° 44' 10" Longitude: -85° 25' 15"
Outfall 028S	Latitude: 38° 44' 15" Longitude: -85° 25' 35"
Outfall 030S	Latitude: 38° 44' 15" Longitude: -85° 25' 35"
Outfall 031S	Latitude: 38° 44' 16.75" Longitude: -85° 25' 28.58"

## 3.0 PERMIT MODIFICATION

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### 3.1 Modification Request

On November 24, 2020, the Indiana-Kentucky Electric Corporation (IKEC) filed an NPDES permit modification request asking for specific modifications and permit condition deletions within IKEC's NPDES Permit. This request was based on revisions the United States Environmental Protection Agency (USEPA) made to the effluent limitation guidelines (ELG's) applicable to the Steam Electric Power Generating Point Source Category that made certain conditions in the Clifty Creek Station NPDES permit obsolete.

In response to ongoing discussions between IKEC and IDEM, IKEC is supplementing the NPDES permit modification request with additional detailed information justifying why an alternate ELG time frame and applicability date for the Clifty Creek Station is merited given the impacts to the facility's overall ELG scope resulting from revisions to the ELGs, as well as other U.S. EPA regulatory actions (i.e. Coal Combustion Residual, Part A regulations), which have also directly impacted the manner in which IKEC must execute work to satisfy the current versions of both federal regulations.

The revised modification request outlines the total time IKEC expects to need to complete the Bottom Ash Transport Water facility modifications that were begun in June 2020, and why

additional time is needed to complete the work. Separately, the document outlines the time IKEC needs to conduct preliminary assessments, make technology assessments, obtain funding, complete engineering and design, procure equipment, and install and optimize the technologies necessary to comply with the revised steam electric effluent guidelines at the Clifty Creek Station associated with FGD wastewater (FGDWW) discharge.

OVEC-IKEC respectfully requests compliance deadlines of December 31, 2023 and December 31, 2025, for bottom ash transport water (with an allowed purge volume of 221 gpm (318,240 gpd) and FGDWW, respectively.

### **3.2 IDEM's Proposed Modification**

The U.S. EPA has established technology-based effluent guidelines for steam electric generating facilities. The Steam Electric Power Generating Point Source Category Effluent Limitations Guidelines (ELGs) found in 40 CFR 423 were incorporated into final rule on November 19, 1982. EPA, on September 30, 2015, finalized a rule revising the regulations for the Steam Electric Power Generating point source category setting the first federal limitations on the levels of toxic metals in wastewater that can be discharged from steam electric power plants, based on technology improvements in the industry over the preceding three decades. The rule required most steam electric power plants to comply with the effluent limitations “as soon as possible” after November 1, 2018, and no later than December 31, 2023. Within that range, the NPDES permitting authority (IDEM) would determine the particular compliance date(s) in the NPDES permit. The revised ELGs and Standards were published in the Federal Register (FR) on November 3, 2015, becoming effective on January 4, 2016.

The current NPDES permit for this facility became effective May 1, 2017. Therefore, the new ELGs and Standards for the Steam Electric Power Generating Point Source Category as revised effective January 4, 2016, were included in the permit. A compliance date of April 1, 2022, was established, based on information submitted by the permittee, to meet effluent limits for Flue Gas Desulfurization (FGD) wastewater and a prohibition on bottom ash transport water.

However, the ELGs and Standards for the Steam Electric Power Generating Point Source Category were again revised in the Steam Electric Reconsideration Rule, which was published in the FR on Oct. 13, 2020 and became effective on Dec. 14, 2020. For the most part, the changes in the rule applied to FGD and bottom ash wastewater, revising the new, more stringent BAT ELGs and standards for existing sources in the 2015 rule that apply to FGD wastewater and BA transport water. In addition, the compliance dates were changed to as soon as possible beginning October 13, 2021, but no later than December 31, 2025.

Furthermore, EPA has stated that the Steam Electric Reconsideration Rule is now also under review for additional revisions. EPA expects permitting authorities to continue to implement the current regulations of the 2015 Rule, as amended by the 2020 Reconsideration Rule, while the Agency undertakes a new rulemaking.

This modified permit incorporates the current effluent limitations and standards contained in 40 CFR 423 as well as a compliance date of November 30, 2022. This compliance date was determined by IDEM. IDEM acknowledges that the permittee will need additional time beyond the current compliance date of April 1, 2022, as well as a permit that reflects the current ELGs and standards. In addition, the current permit will expire on April 30, 2022. Therefore, the

current permit would require the permittee to meet inaccurate and incomplete standards. By establishing the compliance date in this modified permit at a time after the expiration date of current permit, IDEM and the facility will have the opportunity finalize a more accurate and applicable compliance date in the next renewal permit. It is anticipated that a later compliance date will be determined in the next renewal permit and that the facility will request to discharge BA transport water in accordance with 40 CFR 423.13(k)(2)(i). In order to do so, the facility will have to provide the following:

Requirements for facilities discharging bottom ash transport water pursuant to § 423.13(k)(2)(i) or 423.16(g)(2)(i).

Initial Certification Statement. For sources seeking to discharge bottom ash transport water pursuant to 40 CFR 423.13(k)(2)(i) or 423.16(g)(2)(i), an initial certification shall be submitted to the permitting authority by the as soon as possible date determined under 40 CFR 423.11(t).

Signature and certification. The certification statement must be signed and certified by a professional engineer. An initial certification shall include the following:

- A statement that the professional engineer is a licensed professional engineer.
- A statement that the professional engineer is familiar with the regulation requirements.
- A statement that the professional engineer is familiar with the facility.
- The primary active wetted bottom ash system volume in 40 CFR 423.11(aa).
- Material assumptions, information, and calculations used by the certifying professional engineer to determine the primary active wetted bottom ash system volume.
- A list of all potential discharges under 40 CFR 423.13(k)(2)(i)(A)(1) through (4) or 40 CFR 423.16(g)(2)(i)(A) through (D), the expected volume of each discharge, and the expected frequency of each discharge.
- Material assumptions, information, and calculations used by the certifying professional engineer to determine the expected volume and frequency of each discharge including a narrative discussion of why such water cannot be managed within the system and must be discharged.
- A list of all wastewater treatment systems at the facility currently, or otherwise required by a date certain under this section.
- A narrative discussion of each treatment system including the system type, design capacity, and current or expected operation.

### **3.3 Antibacksliding**

Pursuant to 327 IAC 5-2-10(a)(11), unless an exception applies, a permit may not be renewed, reissued or modified to contain effluent limitations that are less stringent than the comparable effluent limitations in the previous permit. The limitations in the permit for selenium and arsenic are less stringent than the comparable limitations for those parameters in the previous permit. Under 327 IAC 5-2-10(a)(11)(B), these less stringent limitations do not violate the antibacksliding requirements since EPA has identified information that would have justified the application of a less stringent effluent limit.

### **3.4 Antidegradation**

This permit includes new or increased permit limitations for selenium and arsenic. In accordance with 327 IAC 2-1.3-1(b), the new or increased permit limitations are not subject to the Antidegradation Implementation Procedures in 327 IAC 2-1.3-5 and 2-1.3-6 as the new or increased permit limitations are not the result of a deliberate activity taken by the permittee. This change is a reflection of the new ELG requirements of 40 CFR 423.

### **3.5 Spill Response and Reporting Requirement**

Reporting requirements associated with the Spill Reporting, Containment, and Response requirements of 327 IAC 2-6.1 are included in Part II.B.2.(d), Part II.B.3.(c), and Part II.C.3. of the NPDES permit. Spills from the permitted facility meeting the definition of a spill under 327 IAC 2-6.1-4(15), the applicability requirements of 327 IAC 2-6.1-1, and the Reportable Spills requirements of 327 IAC 2-6.1-5 (other than those meeting an exclusion under 327 IAC 2-6.1-3 or the criteria outlined below) are subject to the Reporting Responsibilities of 327 IAC 2-6.1-7.

It should be noted that the reporting requirements of 327 IAC 2-6.1 do not apply to those discharges or exceedances that are under the jurisdiction of an applicable permit when the substance in question is covered by the permit and death or acute injury or illness to animals or humans does not occur. In order for a discharge or exceedance to be under the jurisdiction of this NPDES permit, the substance in question (a) must have been discharged in the normal course of operation from an outfall listed in this permit, and (b) must have been discharged from an outfall for which the permittee has authorization to discharge that substance.

### **3.6 Permit Processing/Public Comment**

Pursuant to IC 13-15-5-1, IDEM will publish the draft permit document online at <https://www.in.gov/idem/public-notice/>. Additional information on public participation can be found in the "Citizens' Guide to IDEM", available at <https://www.in.gov/idem/resources/citizens-guide-to-idem/>. A 30-day comment period is available to solicit input from interested parties, including the public.